

DIALOG(R)File 351:Derwent WPI
(c) 2004 Thomson Derwent. All rts. reserv.

013654284 **Image available**
WPI Acc No: 2001-138496/200114
XRAM Acc No: C01-040940
XRPX Acc No: N01-100761

Apparatus for etching silicon substrate, comprises inductively coupled plasma source, reactor and magnetic field coil

Patent Assignee: BOSCH GMBH ROBERT (BOSC)

Inventor: BECKER V; LAERMER F; SCHILP A

Number of Countries: 022 Number of Patents: 005

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200106540	A1	20010125	WO 2000DE1836	A	20000606	200114 B
DE 19933841	A1	20010201	DE 1033841	A	19990720	200114
EP 1203396	A1	20020508	EP 2000949075	A	20000606	200238
			WO 2000DE1836	A	20000606	
KR 2002010737	A	20020204	KR 2002700719	A	20020118	200254
JP 2003505869	W	20030212	WO 2000DE1836	A	20000606	200321
			JP 2001511712	A	20000606	

Priority Applications (No Type Date): DE 1033841 A 19990720

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200106540 A1 G 48 H01J-037/32

Designated States (National): JP KR US

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU
MC NL PT SE

DE 19933841 A1 C23F-004/00 Add in patent DE 10051831

EP 1203396 A1 G H01J-037/32 Based on patent WO 200106540

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI
LU MC NL PT SE

KR 2002010737 A H01L-021/3065

JP 2003505869 W 37 H01L-021/3065 Based on patent WO 200106540

Abstract (Basic): WO 200106540 A1

NOVELTY - Apparatus for etching a substrate (10) has an inductively coupled plasma (ICP) source (13) for generating a high frequency electromagnetic alternating field, and a reactor (15) for producing an inductively coupled plasma (14) made of reactive particles by subjecting the alternating field to a reactive gas. A magnetic field coil (21) is provided which produces a static or temporarily variable magnetic field between the substrate and the ICP source.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a process for etching a substrate using the above apparatus.

USE - For etching silicon bodies.

ADVANTAGE - The magnetic field is orientated in such a way that its direction is approximately or substantially parallel to the direction defined by the connecting line of the substrate and the inductively coupled plasma.

DESCRIPTION OF DRAWING(S) - The drawing shows a cross-section through the etching apparatus.

substrate (10)

ICP source (13)

inductively coupled plasma (14)

reactor (15)
magnetic field coil (21)
pp; 48 DwgNo 1/4

Title Terms: APPARATUS; ETCH; SILICON; SUBSTRATE; COMPRISE; INDUCTIVE;
COUPLE; PLASMA; SOURCE; REACTOR; MAGNETIC; FIELD; COIL

Derwent Class: L03; U11; V05; X14

International Patent Class (Main): C23F-004/00; H01J-037/32; H01L-021/3065

International Patent Class (Additional): H01J-037/248; H05H-001/46

File Segment: CPI; EPI

Manual Codes (CPI/A-N): L04-A01; L04-C07D; L04-D04

Manual Codes (EPI/S-X): U11-A01A; U11-C07A1; U11-C09C; V05-F04A5;

V05-F05C1E; V05-F08E1; X14-F02

?